

Lack of oxygen

A lack of oxygen, caused by other gases taking its place.



Cause #	Cause description
1	Failure of ventilation systems.
2	Failure of sensors.
3	Failure of delivery systems, gas fittings, hoses, regulators.
4	Entering an environment where there has been a leak.
5	Working with toxic gases.
6	Entering an environment where oxygen has been displaced.

Preventive controls (reducing likelihood)	Critical/non critical	Cause #
(CC01) Ventilation systems: Maintenance of integrated ventilation systems in accordance with OEM requirements.	Critical	1 – 6
(CC02) Sensors: Installation, and monitoring of low oxygen sensors (Include testing of sensors in performance requirements).	Critical	1 – 6
(CC03) Detection Alarms: Installation, and monitoring of detection alarms. (Include testing of alarms in performance requirements).	Critical	1 – 6
(CC04) Emergency Shut off valves: Installation, maintenance, use and testing of emergency shut off valves.	Critical	3, 4
Signage for all SCU labs.	Non-Critical	1 – 6
Leak tests carried out post-change over of fittings.	Non-Critical	3, 4
Mitigating controls (reducing consequence)	Critical/non critical	Cause #
(CC05) First aid applied as per first aid training.	Critical	1 – 6
Emergency response plans are in place for all SCU campuses.	Non-Critical	1 – 6

Potential to interact with other fatal risks	
Critical risk	Potential interaction
Diving.	Equipment failure.
Boating.	Displacement of oxygen in confined spaces.